

W6IFE San Bernardino Microwave Society Newsletter

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The 4 **September 1997** meeting will have Joe, WA6PAZ talk about the beginners microwave rig and wideband FM modes and Dave, K6OW will talk about the narrowband modes of microwave communication. SBMS meets at the American Legion Hall 1024 Main Street Corona CA at 1930 hours local time.

Last meeting Chip, N6CA provided a very good talk on the construction techniques used in his 2.3GHz transceiver and had it for inspection.. A beautiful job! Chip then showed his 1.2GHz, 2.3GHz and 3.4GHz loop yagis and discussed how to order parts and build them. He also showed the cutting jig and saw that he uses to cut the slots in waveguide for building iris type filters. K6OW discussed the method that he uses in building his microwave transverters such that all of the oscillators are phase locked to an ultra stable source and the IF's are at 28MHz where he can use an IF transceiver that has all of the 'bells and whistles' and not tie up one of his VHF rigs Dick, WB6DNX of the beacon committee reported that he had obtained new keys and combinations for the locks and that the building owner is planning to build two new buildings and add a couple of towers. Dick also stated that work parties would be needed to move cables and help around the grounds. K6OW asked that when Dick called for help at the site that as many people as possible attend. We need to have a place to operate the beacon and to setup our equipment during contests and when testing our portable equipment and the owner has been very kind to us--lets help him out as much as we can. Under new business there was a very lengthy discussion on the proposal to set up local band planing. Thanks to Chuck, WA6EXV for taking notes for Bill, WA6QYR.

Scheduling

12-14 Sept. ARRL SW Div. Convention in Riverside, CA--SBMS talks and demos!!!!

13-15 Sept. ARRL Sept. VHF QSO Party

20-21 Sept. ARRL 10 Ghz & Up contest 2nd half.

2 Oct. tech talk tbd.

6 Nov. tech talk tbd.

4 Dec. tech talk tbd.--need to know what you wish to hear about, so speakers can be arranged.

1 Jan meeting---do we need to move it to 8 Jan?

First Weekend of the 10 Ghz and Up Contest- a number of members were out and about on the bands. The big fires in Southern California had the southern basins very smoky. Propagation conditions seemed to be quite poor until late in the day. Jack, N6XQ was home in Point Loma DM12JR with his 15 w 6 ft dish rig and was punching holes north. A number of knife-edge shots over the San Gabriel mountains in to the high desert were made to several roving stations. Jack made several contacts with Chuck, WA6EXV (1 w and a 23 dB horn rig). (Chucks 4 ft dish and feed were damaged early Saturday morning when a wind gust dumped it on the ground.) Sunday afternoon had Ed, W6OYJ with 400 mw and a 2 ft dish make it from DM12JU to Bill, WA6QYR having 8w and a 4 ft dish at DM15EH over the mountains. Dave was roving the high desert Sunday afternoon and regularly worked N6XQ as one of the stations per stop. As Dave got closer to the San Gabriel mountains the knife-edge got harder to make, indicating an angle relationship. There were a few Southern California to Northern California contacts this time, but they seemed harder to make than normal. The second half of the contest is coming. Check out those rigs and get ready.

Activities:

K6OD-- Working on wideband 10 GHz Gunnplexer. and reported that he and WA6EXV had made a 24 GHz contact between Walt's Point and Heaps Peak on 5 July; setting a new North American DX Record of 164 miles. The signals were full quieting and no QSB.

K6HIJ--Lockheed donated lots of waveguide parts such as bends, attenuators, isolators couplers and more. All being in bands that hams could use up to 24 GHz. Dick told everyone to take something home.

WB6DNX-- Building up 2.3 GHz transceiver from communications surplus equipment.

WA6EXV-- Modifying surplus power amplifiers and image rejection mixers for 2.3 GHz. Getting ready for the 10 GHz and up contest.

The WA1MBA Microwave Reflector is starting up again. Now it is a moderated list, and therefore, your messages will collect for a day or two before being sent. This will completely prevent a recurrence of that mess that happened in April (again, sorry if it happened to you). There is now ONLY ONE LIST - - Microwave@wa1mba.org and to subscribe you send a message to "microwave-request@wa1mba.org

with the BODY of the message having the one word "subscribe",if you have any trouble, please email to me at tomw@wa1mba.org. No one is automatically added to the list, this list is starting from scratch.

Thanks. Tom W. WA1MBA no frequency high enough.

Australian 24 GHz distance record--On Friday 18 July 1997, Neil Sandford VK6BHT/p at Quinns Beach (suburb north of Perth) worked Walter Howse VK6KZ/p at Falcon (suburb of Mandurah south of Perth) on 24 GHz over a distance of 102.7 Km with ssb reports each way of 5-4 at 04.53 UTC. This was over a sea path with both stations about 10 meters above sea level. This contact exceeded their current Australian distance record of 85 Km. Tests from Two Rocks over a longer path were unsuccessful although Neil did hear brief snatches of VK6KZ transmissions. The following morning (with a 5 am local time rising) each ventured to Two Rocks and Falcon hoping for better propagation. At 00.37 UTC on 19

July contact was established with VK6BHT/p at Two Rocks giving VK6KZ/p at Falcon a report of 3-1 (later amended to 4-1) whilst VK6KZ/p gave a 3-1 report. This contact on 24 GHz over an ocean path of 120.6 Km will be the basis of a claim for a new Australian distance record. Gear at both ends of the paths was similar with DB6NT Mark2 transverters with HEPA providing noise figures of approx. 4 dB and power of about 20 mw and 570 mm dishes with penny feed. Temperatures were 11 degrees and relative humidity 64%. 73 Wal VK6KZ thanks to n6xq@ham-radio.com

73's bill

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